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| 09/593,532      | 06/14/2000  | Steven G. DeNies     | 11983.0046          | 8087             |

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| EXAMINER |
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2615

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                  |                               |  |
|------------------------------|----------------------------------|-------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>09/593,532    | Applicant(s)<br>DENIES ET AL. |  |
|                              | Examiner<br>Walter F. Briney III | Art Unit<br>2615              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-37 and 39-45 is/are pending in the application.
- 4a) Of the above claim(s) 14-22 and 24-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7, 23 and 37-45 is/are rejected.
- 7) ☒ Claim(s) 4-6 and 8-13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. **Claims 1-3, 7, 23, 37 and 39-45 are rejected under 35 U.S.C. 102(e) as being anticipated by Stelman (US Patent 5,892,823).**

**Claim 1** is limited to “a method of providing an indication signal.” Stelman discloses a smart interface technology. The interface technology allows matching between a diverse set of conventional telephone base units and a second set of diverse terminal accessories, where the line interfaces for each device is unknown. See Abstract. Figures 7-9 depict the actual elements of the technology. Particularly, a four-wire phone line 202 (i.e. “a communication pathway carrying signals”) is connected to the “interface device” 200, which inherently contains “conductors” as seen in figure 9. Stelman discloses analyzing the conductors for a dial tone (i.e. “analyzing the signals carried by the conductors to determine which of the conductors are active conductors”). See column 8, lines 20-29. A “list of active conductors” carrying dial tone is latched by the MCU for later use. See column 8, lines 29-30. One such later use is illustrated in figure 4 and described in column 9, line 54, through column 10, line 30. Therein, the MCU transmits a 1 KHz test signal into the line 202. When the signal is detected on the

receive lines determined in the manner noted above, the transmit lines will have been identified, and are subsequently latched.

The above noted sections of columns 9 and 10 clearly suggest that the receive pins latched during dial tone detection are provided in the first column of figure 4, when counting left-to-right (i.e. "provided list of active conductors"). These are matched with known receive pin configurations (i.e. "provided primary interface class information") in column 2 that correspond to a subset of algorithms. The matching step just described corresponds to "determining whether the primary interface class information is similar to the active conductor information." For example, if pins 2 & 3 were determined to carry dial tone, then algorithms 1-5 will be used to detect the correct Tx pinout sequence. After determining the correct Tx pinout sequence, one particular switch configuration will be latched. The latch control inherently consists of two states that either allow or block latching the determined switch configuration. Providing this control corresponds to "providing a first indication signal" as recited. Therefore, Stelman anticipates all limitations of the claim.

**Claim 2** is limited to "the method of claim 1," as covered by Stelman. Stelman discloses detecting the dial tone signal on a pair of lines by analyzing two selected conductors at a time, using the Rx input differential amplifier (Rx-1) seen in figure 8. Further, the signals are filtered using the switchable dial tone filter (Rx-6), which essentially limits the output to "alternating signals" of a frequency substantially equal to a known dial tone signal. See column 8, line 20, through column 9, line 25. The MCU

then receives an indication that the line is alternating from pin Rx Level Ref. See column 9, lines 25-35. Therefore, Stelman anticipates all limitations of the claim.

**Claim 3** is limited to "the method of claim 1," as covered by Stelman. Clearly, active conductors can only be similar to interface class information if the active conductors are among the active conductor information. As seen in figure 4, if dial tone is detected on pins 2 & 3, for example, it is determined that the interface class pertains to that where the Rx pins are pins 2 & 3. Therefore, Stelman anticipates all limitations of the claim.

**Claim 7** is limited to "a method of providing an indication signal." As expressed in the preceding section entitled Restriction/Election, the applicant has admitted that claim 1 is generic to claim 7. Therefore, Stelman has been shown to anticipate all generic elements of claim 7 as well. With regard to the further recitations of claim 7, figure 4 of Stelman depicts "grouping" pins that were detected as carrying dial tone. For example, figure 4 depicts in the leftmost column that pins 2 & 3 are grouped. The grouped pins in the leftmost column are compared to the grouped pins of the second column. For example, pins 2 & 3 are matched to pins 2 & 3, such that algorithms 1-5 are used to determine the correct Tx Pinout configuration. Therefore, Stelman anticipates all limitations of the claim.

**Claim 23** is limited to "the method of claim 7," as covered by Stelman. Clearly, "primary interface class information" can only be similar to "group information" if the "primary interface class information" is among the "group information." As seen in figure 4, if dial tone is detected on pins 2 & 3 (i.e. "group information"), for example, it is

determined that the primary interface class information that relates to the group information is that where the Rx pins are groups as pins 2 & 3. Therefore, Stelman anticipates all limitations of the claim.

**Claim 37** is limited to "a discovery device." Stelman discloses smart interface technology (SIT). See Abstract. Clearly depicted in figure 8 is a "first set of conductors" (LINES 1-4) associated with a modular jack (i.e. "first connector"; figure 4), configuration switches (2 and 3) and a "second connector" (Rx Level Ref.). Inherently, the modular RS-9 jack connects to a "communication pathway" (see figure 6) and the configuration switches provide a connection between the "first and second set of connectors." Figure 7 depicts a computer (100) that controls the configuration switches (2) and (3) by way of the 32-bit addressable latch (1), the switches and latch depicted in figure 8. Stelman discloses comparing the information in the dial tone detection column to the Rx Pinout column, where the conductors identified in the Rx Pinout column correspond to "conductors used in transmitting signals according to the interface class." If the information matches, then switching commences. The comparison inherently produces either a true or false result. Therefore, Stelman anticipates all limitations of the claim.

**Claim 39** is limited to "the device of claim 37," as covered by Stelman. Claim 39 recites steps that are essentially the same as claim 7, as covered by Stelman. As the computer is responsible for controlling the configuration switches, it follows that the computer is also instructed by software to perform the steps of claim 39. Therefore, Stelman anticipates all limitations of the claim.

**Claim 40** is limited to “the device of claim 39,” as covered by Stelman. Claim 40 recites steps that are essentially the same as claim 23, as covered by Stelman. As the computer is responsible for controlling the configuration switches, it follows that the computer is also instructed by software to perform the steps of claim 40. Therefore, Stelman anticipates all limitations of the claim.

**Claim 41** is limited to “the device of claim 37,” as covered by Stelman. As seen in figure 1, Stelman discloses selecting Rx lines, two at a time, and connecting them to the CPU by way of the “second connector” (Rx Level Ref) for dial tone analysis. Therefore, Stelman anticipates all limitations of the claim.

**Claim 42** is limited to “the device of claim 37,” as covered by Stelman. As seen in figure 8, Stelman discloses an “attenuator” (RX-2) between the “first and second connectors.” Therefore, Stelman anticipates all limitations of the claim.

**Claim 43** is limited to “the device of claim 42,” as covered by Stelman. As seen in figure 9, “two conductors are selected and connected by way of a shunt load.” Therefore, Stelman anticipates all limitations of the claim.

**Claims 44 and 45** recite essentially the same limitations as claims 1 and 7, respectively, and because Stelman performs all method steps using a CPU (100), Stelman anticipates all limitations of the claims.

### ***Allowable Subject Matter***

The following is a statement of reasons for the indication of allowable subject matter:

2. **Claims 4-6 and 8-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.**

**Claims 4-6 and 8-13** are allowable over the cited prior art for the reasons presented in the Non-Final Office Action filed 15 September 2005.

### ***Response to Arguments***

The applicant's arguments filed 15 February 2006 have been considered, but are not persuasive.

**With respect to a lack of evidence**, the applicant alleges on page 17, lines 11-26, of the current response that there is no support in the disclosure of Stelman for figures 4 and 5, to which the examiner disagrees. Column 10, lines 19-30, explicitly describe the method represented by figures 4 and 5, and how it relates to the process performed by the circuitry illustrated in figures 7-9.

**With respect to claims 1-3**, the applicant alleges on page 18, lines 1-19, that the Rx Pinout shown in figure 4 does not reasonably disclose providing primary interface class information as required by claim 1, to which the examiner respectfully disagrees. As described in column 10, lines 19-30, figures 4 and 5 depict switching algorithms used to detect a Tx Pinout configuration. The Rx Pinout configuration was already determined in accordance with a dial tone detection, the results of which are clearly illustrated and labeled in the first column of figure 1 (counting from left to right). These results are compared to Rx Pinout information to determine which algorithms to use for determining the Tx Pinout configuration. This is evidenced by the fact that each



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algorithm is associated with unique Rx and Tx Pinout information, and each algorithm is further associated only with dial tone detection data that matches its particular Rx Pinout configuration. Therefore, the Rx Pinout configuration associated with a particular algorithm relates, at least in part, to "information about the active conductors for a known interface class."

**With respect to claim 7**, the applicant alleges on page 19, lines 5-12, that the dial tone detection column of figure 4 does not provide grouped pin information, to which the examiner respectfully disagrees. Figure 4 clearly depicts a group/pair of pins. As disclosed in column 8, lines 20-30, pairs of pins are selected to detect a dial tone. Therefore, active pins are determined in groups, and provided in groups.

**With respect to claim 7**, the applicant alleges on page 19, lines 13-23, that the Rx Pinout column merely lists which ones of the phone jack terminals 1-4 that the configuration switches pass, to which the examiner respectfully disagrees. As noted above with respect to claims 1-3, the Rx Pinout column provides necessary information for matching an algorithm to dial tone detection information.

**With respect to claims 44 and 45**, the applicant alleges that claims 44 and 45 contain limitations that are not essentially the same as those in claims 1 and 7, to which the examiner respectfully disagrees. For example, claim 44 comprises "analyzing signals", "determining active conductor information", "comparing and determining", and "providing." These steps correspond directly to the "analyzing," "providing active conductor information", "providing and determining", and "providing" steps of claim 1. It

is noted that claim 44 describes "comparing", but this is inherently covered by the "determining" step of claim 1. A similar analysis applies to claim 45.

The applicant further alleges that CPU 100 is not related to figure 4. However, column 10, lines 19-31, explicitly links the two. Applicant's remaining arguments have already been treated with respect to claims 1 and 7 above.

**With respect to claims 37 and 39-43**, the applicant alleges on page 21, lines 11-20, that claim 1 does not contain the limitation of claim 38, which has been cancelled and added to claim 37. While, claim 1 might not suggest this, Stelman certainly does. In particular, as noted above with respect to figure 4, the dial tone detection information in the first column is compared to the Rx Pinout information in the second column to determine an algorithm to run to detect a Tx Pinout configuration. The pins listed in the Rx Pinout column correspond to "conductors used in transmitting signals." Therefore, as all of the applicant's arguments have been shown to be either moot or unpersuasive, the rejections of claims 1-3, 7, 23, 37 and 39-45 are maintained.

### ***Conclusion***

All the rejections in this Office Action are predicated on the same grounds of rejection made in the Non-Final Office Action filed 15 September 2005. Any difference was made merely to clarify the record; therefore, **THIS ACTION IS MADE FINAL.**

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within


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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter F. Briney III whose telephone number is 571-272-7513. The examiner can normally be reached on M-F 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**SINH TRAN**  
**SUPERVISORY PATENT EXAMINER**

WFB